

Title: White Light Coronagraph (WLC) and Ultra-Violet Coronal Spectrometer (UVCS)

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Short Description: The WLC and UVCS together reveal the corona and the roots of the solar wind from 1.5 to 6 solar radii from sun center. The WLC measures the plasma density and spatial structure of the corona and coronal mass ejections at a resolution of about 20 arcseconds. The UVCS in combination with the WLC measures the temperature and radial outflow speed of the coronal plasma. These instruments will detect mass ejections from active regions and high speed solar wind streams from coronal holes a few days before the source regions rotate onto the face of the Sun, thus giving a week or more of advanced warning for disturbed geomagnetic conditions at Earth.

Instrument Characteristics:

Mass:	250 kg
Volume:	3 cubic meters
Power:	100 watts
Data rate:	100 kbps
Pointing:	Direction: Sun center
	Accuracy: better than 10 arcseconds

General Comments:

Early versions of this instrument have flown successfully on rockets. Improved versions are planned to fly on SPARTAN and on SOHO.

On STO, images from the WLC should be monitored by the crew and by scientists on the ground.

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